Excellence Training Center

Mahoning Valley Excellence Training Center

Advanced Technology Hub connecting creative minds through advanced manufacturing
ETC: Goals

• National leadership in comprehensive Advanced Manufacturing Education
  – Priority: Workforce Development for Coal impacted clients
  – Education, Training, and Research

• Hands-on and practical experience using state of the art, industry-grade advanced manufacturing equipment

• An innovative, sustainable business model that addresses the limitations of stand-alone training centers
ETC: Goals

• Enable workforce development, education, entrepreneurship, and research.
  – Advanced Manufacturing Value Chain
    • Design, manufacture, qualify, inspect
  – Operations Management
    • Inventory, scheduling, logistics, quality
  – Business Management
    • Financial Sustainability
  – Entrepreneurship
    • Part prototyping, small batch processing, client support
ETC: Value for Partners

• Broad spectrum of advanced manufacturing assets
  – Industrial grade educational assets
  – Available 24 X 7 X 365 for greater utilization

• Leveraged procurement and maintenance

• “Living” model for Career Development
  – Seamless articulation amongst academic partners

• Daily interaction with Business and Industry

• Shared Operational Policy, Management Structure, and Legal Construct
MVICC Facility

• Advanced Manufacturing Teaching Factory
  – Industrial High Bay
    • Overhead Cranes
    • Dock Doors
  – Genius Factory Floor
  – Innovation Atrium
    • Creative Collaboration Space
    • Lockable Project Development Space
    • Classroom and Conferencing
ETC: Representative Equipment

- ExOne S-Max Sand Core Printer
- AMBIT Directed Energy Disposition (Hybrid Manufacturing Technologies)
- Voxel8 Hybrid 3D Printer
- Co-robot – Fanuc CR71A/L
- FANUC M=LiA/0.5A R30B CERT Cart w/ Vision
- CNC Vertical Machining Center
- Welding Training Station
- Electronics Assembly Process
ETC Genius Factory

• Closed Loop manufacturing processes
• IOT featured
• Part Qualification technology
• Novel education and training models
• Novel business and sustainment models
• Leadership and communication models
  – Social interaction amongst diverse populations
• Environmental Sustainability
ETC: Innovation Atrium
ETC: Innovation Atrium